

Sacramento River Temperature Task Group (SRTTG) Meeting
July 23, 2020 | 1:00 – 3:00 PM
Meeting Summary

Participants

Allison Febbo, Reclamation	Kristal David-Fadtke, CDFW
Charlie Chamberlain, USFWS	Kristin White, Reclamation
Chris Laskodi, Yurok Tribe	Lauren McNabb, CDFW
Craig Williams, SWRCB	Liz Kiteck, Reclamation
Duane Linander, CDFW	Matt Brown, USFWS
Elissa Buttermore, Reclamation	Matt Holland, SWRCB
Eric Danner, NMFS	Matt Johnson, CDFW
Erica Meyers, CDFW	Michael Macon, SWRCB
Garwin Yip, NMFS	Mike Harris, CDFW
George Kautsky, Hoopa Valley Tribe	Mike Prowatzke, WAPA
James Gilbert, NMFS	Mike Wright, Reclamation
Jim Early, USFWS	Miles Daniels, NMFS
Jim Smith, USFWS	Randi Field, Reclamation
Jo Anna Beck, Reclamation	Seth Naman, NOAA
John Hannon, Reclamation	Sheena Holley, CDFW
Jonathan Williams, CDFW	Stephen Maurano, NMFS
Josh Israel, Reclamation	Vanessa Kollmar, CDFW

**Key Discussion Topics with
Summary of Outcomes and Agreements**

Action items

1. Randi Field – Set up new time for weekly SRTTG Update meetings.
2. Randi – Post the final meeting notes & materials, and distribute the Upper Sacramento Scheduling Team guidance document
3. Randi and Josh Israel – Align schedules to distribute rotary screw trapping, carcass numbers, and other updates along with biweekly packets.
4. Randi – Update Resources section of Upper Sacramento River Summary Conditions document to include information on how to access the Habitat Restoration Monitoring Surveys on the Sacramento River Forum website.
5. Randi, Seth Naman, Chris Laskodi, and George Kautsky – Schedule a meeting to discuss operations on Trinity River.
6. Reclamation – Follow up with request to address uncertainty in the egg mortality models; provide additional information on the differences between two temperature model runs.
7. All – Provide comments to Reclamation on TCD Operations in early August before the next SRTTG meeting.

1. Introductions

Randi Field confirmed with SRTTG members that the weekly update meetings will continue to be held on an as-needed basis. She noted that there are conflicts with the Tuesday afternoon time and will be rescheduling this standing meeting time.

2. Purpose and Objectives

The objective and purpose of this meeting is to focus on the Sacramento River temperature management. Randi thanked the State Water Resources Control Board for their interest and engagement in discussions around temperature modeling.

3. Prior Action Items

Sharon Hu, Kearns & West, and Randi reviewed Prior Action Items and status:

1. Randi – Update the SRTTG Agenda to include fisheries before hydrology. – *Complete.*
2. Randi – Follow up with Charlie Chamberlain, USFWS re: question about the Whiskeytown thermocline. – *Reclamation stated they had identified a potential issue with operations at Whiskeytown. There may be a loss in cold water pool which may impact temperatures. Reclamation plans to provide future update to SRTTG on four actions: (1) gather information and data on past operations, (2) make initial assessment, (3) identify adjustments for future Whiskeytown operations, (4) identify ways to avoid problems in the future.*
3. Josh Israel and Jim Smith to clarify agenda topics. – *Jim and Josh agreed to improve upon the monitoring report by providing an estimate of the interyear and seasonal variability of fish populations upstream of sampling. They will follow up at a future SRTTG meeting.*
4. Randi – Request invitation for SWRCB to participate in forums where temperature modeling is being discussed – *Complete.*
5. All – Request from Reclamation to provide feedback from everyone on recommendations to adjust the Temperature Management Plan given new information. – *Complete. Addressed in the agenda.*
6. Randi – Agendize topics for future interim SRTTG meetings, including discussion on Martin and Anderson Model and assumptions for those models (specifically timing and distribution of redds). – *Randi stated that topics are being collected for future discussions.*

4. Communications

Randi reviewed the following communications:

- July 2 – SWRCB Transmittal letter to Reclamation
- July 9 – Response from Reclamation to the SWRCB

- July 10 and July 23 – Transmittal of temperature model information from Reclamation to the SWRCB

5. Long Term Operations Implementation – Update

Josh Israel provided an update on the Upper Sacramento Scheduling Team, a technical team which will be convening in the coming weeks to discuss Upper Sacramento River flow and fisheries objectives. A guidance document has been developed around two iterative processes for fall/winter flow and spring pulse flow operations. A kickoff is anticipated for August 2020.

SRTTG members requested that the guidance documents be distributed to the SRTTG to better understand the relationship between the Scheduling Team and the SRTTG. Josh noted that outreach to the settlement contractors is underway.

6. River Fish Monitoring: carcass surveys, redd counts, stranding and dewatering surveys and sampling at rotary screw traps

Matt Johnson reported that CDFW has found:

- The lowest most redd this year was observed on July 14th, two miles below CCR.
- Most redds are above CCR.
- 411 redds from aerial redd surveys as of July 23rd.
- New redd construction peaked on June 24th and appears to be on a decline.
- Shallow redds are in decline.
- Carcass counts are relatively high (2,360).

7. Fish Distribution/Forecasts: Estimated percentage of the population upstream of Red Bluff Diversion Dam for steelhead, winter-run and spring-run Chinook salmon, steelhead update and Livingston Stone National Fish Hatchery.

Jim Smith provided the following report from USFWS:

- Rotary screw trapping at Red Bluff resumed on June 30th. The website will be updated with biweekly passage estimates. The latest current total passage estimate of juvenile winter-run Chinook salmon is 2,585.
- Currently most of the juvenile winter-run Chinook salmon are above the Red Bluff Diversion Dam. There is no indication the winter-run Chinook salmon observations reported through July 5th are from April spawning. Increases in juvenile winter-run Chinook salmon passage past Red Bluff Diversion Dam are generally observed around August, September, and October.
- Most winter-run Chinook salmon have been spawned from Livingston Stone National Fish Hatchery, but there will be more to come.

- Around 50 percent of the broodstock collection at Livingston Stone National Fish Hatchery are of hatchery origin. There is some concern about hatchery influence. Hatchery fish comprised 46 percent of the carcass survey.

8. Recommendations: Agencies provide feedback and information to Reclamation regarding fish monitoring/operations.

Josh Israel solicited feedback from SRTTG members on the fish monitoring and operations data provided. SRTTG members discussed the following:

- Josh Israel and Jim Smith to coordinate with Randi to include fish data in the monthly SRTTG meeting packet.
- Monthly updates on habitat restoration monitoring of about a dozen sites are posted on the Sacramento River forum monitoring page.

9. Hydrology Update

Randi presented the hydrology update. She noted that the Northern Sierra Precipitation data indicates that this is a relatively dry year.

10. Operations Update and Forecasts

Randi presented the operations update and forecasts.

11. Storage/Release Management Conditions

Randi provided an update on storage/release management conditions, highlighting the following:

- Upper Sacramento River Summary Conditions – July (Ongoing):
 - Storage/Release Management Conditions
 - There is some depletion relief due to delayed transfers and altered magnitudes of transfers.
 - Though the long-term conservative (inflow hydrology) projections are better than estimated, storage conditions at the end of September are still going to be relatively low compared to a normal year but within range of this water year type.
 - Randi noted an error in the Summary Conditions and will correct it. In the previous version, the trend of observed Shasta inflow was not specified.

SRTTG members discussed the following:

- The patterns seen at Carr Power Plant are not related to the use or non-use of one of the power plants at Spring Creek.

- Impacts on temperature in the Sacramento River are not expected as a result of potential cold water pool issues at Whiskeytown. There are concerns, however, for temperatures on Clear Creek.
- Reclamation continues to move water from Trinity Reservoir to the Sacramento River to keep temperatures on the Trinity River and Clear Creek cooler by shortening the residence time at Lewiston and Whiskeytown Reservoirs.

12. Temperature Management

Randi provided an overview of several temperature management reports and highlighted the following:

- Northern CVP Water Temperature Report:
 - Reclamation has historically reported out only on the water right not the basin plan for the Douglas City gauge on the Trinity River.
 - The temperature exceedance (above the maximum threshold of 54.4 degrees F) at CCR lasted for three days.
 - Tomorrow the Sacramento Temperature Report will reflect an updated Shasta TCD configuration and will show an additional open PRG as a result of today's change.
- The Upper Sacramento River – July 2020 Preliminary Temperature Analysis indicates that July and August will perform similarly for all three model runs (delaying side gate use, extending 53.5 degrees F in August, and extending 54 degrees F in September).
- Results from three model runs indicate reasonable end of September cold water pools.
- Sacramento River Modeled Temperature Scenario 148 – Delayed side gate use in August.
 - There is less confidence in this model starting in mid-September. Slides 40, 42, and 44 show the shaded portion where the model has historically been less accurate.
- Trinity – Modeled Temperature – Delayed side gate use in August
 - There is more confidence in this model, which indicates that 56 degrees F can be maintained at CCR.

SRTTG members discussed the following:

- Chris noted that the Douglas City monitoring stations on the Trinity is showing temperatures that are higher than the basin plan criteria. Reclamation offered to host a follow-up meeting with those interested in the Douglas City temperatures.
- Randi noted that the Sacramento River temperature model results in the fall are not accurate enough to determine if the temperature control gates can maintain 56 degrees F at CCR, this is why the end of September cold water pool relationships are used instead. Randi added that Reclamation is making operational decisions, using the model results as one source of input and taking into account the models' limitations on accuracy.

- The Shasta TCD configuration conditions are currently meeting or exceeding what the model would suggest.

13. Temperature Dependent Mortality

Elissa Buttermore provided an overview of the Summary Document for temperature-dependent egg mortality and emphasized that Table 1 has been updated to show stage dependent mortality and stage independent mortality percentages.

SRTTG members discussed the following key items:

- The methodology used for the mortality estimates are consistent with the methodology shared at the May meeting.
- Members would like to see a measure of uncertainty in the egg mortality estimates.
- There are likely developmental periods in which the stage dependent model and stage independent model perform similarly but the length of the critical window is still be examined. Further examination will be needed to develop a common understanding of the variability in fish biology and how that uncertainty is built into the parameters of the models.

14. Recommendations: Agencies provide feedback and information to Reclamation regarding temperature management operations

Josh Israel solicited feedback from SRTTG members on the temperature management operations information provided. SRTTG members discussed the following key points:

- SWRCB staff are not able to provide feedback on policy considerations outside of the limits of the models. It is difficult to provide advice with regards to actions for improving temperatures in August and September when mortality numbers from Reclamation and NMFS conflict.
- CDFW may provide advice after internally discussing the differences between two model runs. CDFW is leaning toward extending the 53.5 degree F target through August.
- NMFS noted that there are concerns at Trinity River regarding the Fall Flow action and temperatures at Douglas City.
- Reclamation will revisit changes to the model run closer to September 15th.
- USFWS staff expressed concerned over relying on full side gate operations for temperature control and extending 54 degrees F out to September.
- Reclamation posed that if cold water pool resources are available at the tail end of the season, it would be possible for Reclamation to utilize this cold water pool.

15. Seasonal Topics

John Hannon reported on upcoming seasonal projects including South Cypress and South Side Channels at Anderson River Park.

16. Discussion

None.

17. Review Action Items

Sharon reviewed the action items.

18. Next Meeting Scheduling

The next SRTTG teleconference will be held on the 4th Thursday of next month, August 27, 2020.